

REMARKS

This response is offered in reply to the Office Action of September 7, 2006. A petition and fee for a two (2) month time extension are enclosed.

On page 2 of the office action, claims 1-6 now are rejected under 35 USC 103(a) as obvious in view of the Basta US patent 5,658,614 taken with the newly cited Near US patent 6,143,361.

Applicants believe the pending claims distinguish over the cited '614 patent taken with the '361 patent. For example, the examiner acknowledges that the Basta '614 patent does not teach the flow rate and volume percentage of aluminum trichloride recited in Applicants' pending claims.

The examiner argues that Basta's ranges set forth motivation that flow rates and volume % of aluminum trichloride are varied in a CVD process.

Applicants disagree. Firstly, Applicants' discovery that a lower concentration of aluminum trichloride increases coating rate itself contradicts and rebuts the examiner's obviousness and "expectation" argument set forth on page 3, penultimate paragraph of the office action, which argument is not supported by any teachings of any reference.

Secondly, Applicants point out that there is simply no teaching whatsoever in the Basta '614 patent with respect to variation of coating parameters as set forth in Applicants' pending claim 1 in a manner to increase coating rate of an outwardly grown aluminide diffusion coating on a substrate. Moreover, Applicants believe that the Basta patent in fact teaches away from pending claim 1 in disclosing an aluminum trichloride concentration of 9 volume % of the coating gas mixture. This teaching of Basta clearly leads away from providing a lower concentration of aluminum trichloride in the chamber of less than about 1.4% by volume of the coating gas mixture in the chamber together with providing a total pressure of the coating gas mixture in the chamber of about 100 to about 450 Torr as set forth in pending claim 1.

The examiner's arguments regarding variation of volume percentage of aluminum trichloride to justify the obviousness rejection appear to be mere speculation unsupported by any teaching of any cited reference and amount to a prohibited hindsight analysis of Applicants' pending claim 1. The examiner cites no reference of any kind that supports or makes up for the contrary teaching of the Basta patent and the resultant gross deficiency thereof.

Moreover, Basta does not teach the total pressure of the coating gas mixture in the chamber set forth in Applicants' pending claims. The coating conditions of the '614 patent typically involved a total pressure of the coating gas mixture in the chamber of 500 Torr, which is beyond the total pressure of Applicants' pending claims.

Applicants fail to see how the cited Basta '614 patent can provide motivation to achieve Applicants' pending claims 1-6 given the above discussion of the lack of and contrary teachings of Basta.

The examiner cites the Near '361 patent as disclosing a reduced pressure. However, the examiner should note column 4, lines 27-34 of the Near patent refers back to the Basta '614 patent with respect to coating parameters, including the reduced pressure mentioned by the examiner, in such manner that the Near patent utterly fails to make up for the above-noted deficiency of the Basta patent.

Applicants point out that there is simply no teaching whatsoever in the Basta '614 patent or the Near '361 patent with respect to variation of coating parameters as recited in pending claim 1 to increase coating rate of an outwardly grown aluminide diffusion coating on the substrate. Instead, the Basta reference and the Near reference by referring back to Basta teach away from the pending claims in disclosing an aluminum trichloride concentration of 9 volume % of the coating gas mixture.

USSN 10/674,059

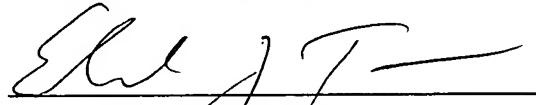
The same is true with respect to the recitation in claim 2 of providing a concentration of aluminum trichloride of about 0.6 to about 1.2% by volume of the coating gas mixture in the chamber together with a total pressure of the coating gas mixture in the chamber of about 100 to about 300 Torr.

The same also is true with respect to the recitation of claim 3 of providing a concentration of aluminum trichloride is about 1.0% by volume of the coating gas mixture in the chamber, and the total pressure of the coating gas mixture in the chamber is about 200 Torr.

Applicants request allowance of the pending claims.

Applicants enclose an IDS for the examiner to consider references cited in a French search report.

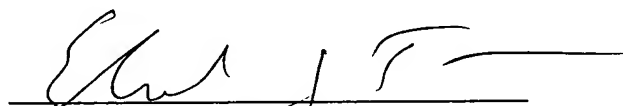
Respectfully submitted,

  
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enclosure: Postal card

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I hereby certify that this correspondence and enclosures are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents  
P.O. Box 1450, Alexandria, VA 22313-1450, on February 6, 2007.

  
Edward J. Timmer